Pre- and Post-Cruise Report and principle and Postand a first and a successful to the flat of porteriored a.

Project: Puerto Rico Marine Geology Co-op The first of the f

Cruise No.: 79-7

Ship: The project's 15-foot Zodiac inflatable

Area of Operations: Inner shelf off mouth of Rio de la Plata, near Dorado, P.R.

Dates: 13, 19, 21, and 25 September 1979

Science Party: at sea: Jim Trumbull, C.S.

Kurt Grove Parks D. France

José Muñiz (P. R. Dept. Natural Resources) To Harris

Dr. Jack Morelock (Univ. of P.R.) T. Aller

E. W. 28 49 Shore navigation support:

Nelson Espinell (P.R. Dept. of Natural Resources) Elizabeth Hyman (P. R. Dept. of Natural Resources)

Barbara Morelock (Dr. Morelock's wife) Ada Aviles (P. R. Dept. of Natural Resources)

Abram Machado (P. R. Dept. of Natural Resources)

Man-days: At sea: USGS-4 Other-5

Other-7 Ashore: USGS-3

Purpose and Accomplishments: To investigate change in shelf sediments and morphology caused by hurricane runoff by a major river. Successful job. 33 sediment samples, est. 15 km echo-sounder records, est. 12 Scuba dives.

Equipment: MKIII Zodiac, 25-hp outboard, miniature Van-Veen sampler, Scuba gear, miniature echo-sounder, navigation system.

Navigation: Trumbull's splendid unpatented plane-table-transit-radios triangulation system, the poor man's Miniranger.

Comments: Very successful and exciting. HOWEVER we had extreme difficulty in getting enough people together to get to sea. SCUBA-diving takes 3 people in the boat, for two must go down and someone must stay in the boat as a matter of safety. At the same time a minimum of two people is needed for navigation control ashore, and not all people are capable of that work.

Five good people is minimum, and we were hard put to find a fifth capable of the works as is suggested by the list of participants.

This lost us some good scientific data because it delayed our work until quite a few days after the event 7the results of which we were investigating.

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